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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,186	10/12/2001	Felix G.T.I. Andrew	13768.783.9	1415
47973 7590 05/21/2007 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111			EXAMINER HANNE, SARA M	
			ART UNIT 2179	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/976,186

Applicant(s)

ANDREW, FELIX G.T.I.

Examiner

Sara M. Hanne

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/29/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/19/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This action is responsive to the amendment received on February 29, 2007.

Claims 1-3, 5, 7-30 are pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 5, 7-10 and 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 14 recites the limitation "the application program state data" in line 12. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether this is meant to refer to the application program state data from the first application program or the second application program.

The dependent Claims are rejected based upon the above rejections of their corresponding Independent Claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Sigl, US Patent 6714220.

As in Claim 11, Sigl teaches a computer implemented method for receiving from an application program, application state data corresponding to a field identifier of a field in focus, the received state data received at a software input method manager (Figure 3, Ref. 3.2), via a application state determination mechanism independent of the application program and software input method manager (field selected), the software input method manager independent of the application program (Col. 2, lines 58-61 and Col. 6, lines 15 et seq.), after receiving the application state data corresponding to the field identifier and prior to any user selection of a key for input into the field in focus, automatically determining an input panel from a database of input methods for the application program from the software input methods (Figure 3, Ref. 3.3), each software input method independent of the application program (numeric keypads are common to many applications), wherein the determined input panel is configured for use by the user with a application program (Figure 3, Ref. 3.5 and 3.6), and returning data to the

application program corresponding to user interaction with the input panel (Figure 3, Ref. 3.8), the input panel having a customized, displayed key that, when actuated, returns the text displayed on the key to a application program (the input panel includes keys customized by the type of field selected in the application program).

As in Claim 12, Sigl teaches receiving from the application program, a key choice in relation to the selected input method and configuring a key on the input panel are based on the key choice (Fig. 3 and corresponding text).

As in Claim 13, Sigl teaches a computer-readable storage medium having computer-executable instructions (Column 3, lines 1-9).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5, 7, 9-10, and 14-30 are rejected under 35 U.S.C. 103(a) by Sigl, US Patent 6714220 and further in view of Dutta et al., US Patent 6724370, hereinafter Dutta.

As in Independent Claim 1, Sigl teaches a system comprising a plurality of software input methods (subset panels) that are independent of each of the plurality of application programs (configurations of relevant numbers, letters dependent on the type

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of application), each software input method having an input panel configured to receive user input based on user interaction therewith and stored in a software input method database (Figure 2, Ref. 3.2) and a software input method manager independent of each of the plurality of the application programs (Col. 2, lines 58-61 and Col. 6, lines 15 et seq.) configured in conjunction with an application state determination mechanism to perform the acts of: receiving state information from an application program, the state information corresponding to one or more fields that have initially received focus (Col. 4, line 30 et seq.), after receiving state information from the application, and before receiving any user input in any of the initially focused field (Fig. 2 and corresponding text), predicting and selecting an appropriate input method based on the received state information from the application program (Figure 3, and corresponding text). While Sigl teaches the plurality of software input methods selected according to the application program state, they fail to explicitly teach after receiving initial user input into the initially focused field, automatically changing the selected input panel based on a subsequent determination of the application program's state as recited in the claims. In the same field of the invention, Dutta teaches a software input method manager (virtual keyboard manager) with a plurality of software input methods similar (customizable touchscreen keyboard) similar to that of Sigl. In addition, Dutta further teaches after receiving initial user input into the initially focused field, automatically changing the selected input panel based on a subsequent determination of the application program's state (Fig. 8 and corresponding text), It would have been obvious to one of ordinary skill in the art, having the teachings of Sigl and Dutta before him at the time the invention was made, to modify

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the software input system for using different input panels configured to receive user input, wherein the independent method manager selections the method based upon a determined state of the application program to enable user interaction with the panel to provide input taught by Sigl to include the changing of the selected input panel based on a subsequent determination of the application program's state of Dutta, in order to obtain a multiple input method independent from multiple application programs using an initially chosen field to determine which input method and then altering that method according to a subsequent application program's state to present to the user. One would have been motivated to make such a combination because a predictable dynamic input system for all keyboard-input accepting applications would have been obtained, as taught by Dutta.

As in Claim 2, Sigl teaches the application program to communicate the state to the SIP method manager through the application state determination mechanism (Column 3, lines 1-9).

As in Claim 3, Sigl teaches a component external to the application program to determine the state of the application program that hosts the application state determination mechanism and communicates the state to the SIP method manager (Column 6, line 51 et seq.).

As in Claim 5, Sigl teaches the application program communicating data corresponding to the field to the SIP method manager where the SIP method manager selects the input method based on the data (Figure 3, Ref. 3.3).

As in Claim 7, Sigl teaches the application program communicates to the software input

method one or more key choices to be displayed and wherein the software input method configures at least some keys on the input panel based on key choices to be displayed (Figure 3, Ref. 3.4 and 3.5).

As in Claim 9, Dutta teaches the key choices include an entire string that is to be output to the display upon selection by the user (Fig. 8 and corresponding text).

As in Claim 10, Sigl teaches a database of previous use input information, such that the software input method configures some keys on the input panel based on the previous user input information (previous use for the selected field).

As in Independent Claim 14, Sigl teaches a computer implemented method for receiving application program state data at from a first application program corresponding to an initially focused field (See Claim 1 rejection *supra*), each application program state received at a software input method manager via an application state determination mechanism that is independent of the application programs and independent of the software input method manager, the application state determination mechanism and software input method manager independent of the application program corresponding to the application program state data (Col. 2, lines 58-61 and Col. 6, lines 15 et seq.), upon receiving the application program state data, and prior to any user input into any one of the initially focused fields, selecting an input panel from a database of input panels based on the application program state data of the application program corresponding to the one or more initially focused fields, the input panel being independent of each application program, displaying keys on the input panel to enable user interaction with the input panel, and returning key data to the

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application program corresponding to user interaction with the input panel (See Claim 11 rejection supra). While Sigl teaches the plurality of software input methods selected according to the application program state, they fail to show a two application programs working with the recited method as recited in the claims. In the same field of the invention, Dutta teaches a software input method manager (virtual keyboard manager) with a plurality of software input methods similar (customizable touchscreen keyboard) and a database of input panels (Fig. 6, 8 and corresponding text) similar to that of Sigl. In addition, Dutta further teaches a second independent application program to which the second selected input panel is based on a state of a second application program (Col. 2, line 48 et seq.). It would have been obvious to one of ordinary skill in the art, having the teachings of Sigl and Dutta before him at the time the invention was made, to modify the software input system for using different input panels configured to receive user input, wherein the independent method manager selections the method based upon a state of the application program to enable user interaction with the panel to provide input taught by Sigl to include the multiple application programs beyond the software input method manager of Dutta, in order to obtain a multiple input method independent from multiple application programs using an application program state to determine which input method to present to the user. One would have been motivated to make such a combination because a predictable dynamic input system for all keyboard-input accepting applications would have been obtained, as taught by Dutta.

As in Claim 15, Sigl teaches receiving data corresponding to a communication from the application program (See Claim 2 rejection supra).

As in Claim 16, Sigl teaches receiving data corresponding to a communication component external to the application program (See Claim 3 rejection supra).

As in Claim 17, Sigl teaches the selecting an input panel to comprise loading an input method (Figure 3, Ref. 3.4 and 3.5).

As in Claim 18, Sigl teaches the selecting an input panel to comprise notifying a loaded input method (popup window 2.1).

As in Claim 19, Sigl teaches the software input method manager receiving from the application program data indicating key configuration information identifying a key to be displayed and the software input method manager configuring keys on the input panel based on the key configuration information received from the application program (See Claim 7 rejection supra).

As in Claim 20, Sigl teaches receiving key configuration information comprising receiving data corresponding to a communication from the application program (See Claim 2 rejection supra).

As in Claim 21, Sigl teaches configuration information comprising receiving data corresponding to a communication from a component external to the application program (See Claim 3 rejection supra).

As in Claim 22, Sigl teaches receiving data corresponding to a communication from a database (the stored keys are a database).

As in Claim 23, Sigl teaches returning a string of at least two characters in response to a single displayed key being actuated (the ok button returns the string in Ref. 2.3 of Figure 2).

As in Claim 24, Sigl teaches a computer-readable storage medium having computer-executable instructions (See Claim 13 rejection *supra*).

As in Claim 25, Sigl teaches a method comprising: receiving one or more requests to open an application program (program must be opened to be displayed); receiving, at a software input method manager, state data from the application program corresponding to one or more fields that have initially received focus (Fig. 2 and corresponding text); after receiving the one or more requests and the state data, and prior to receiving any user input into the fields (Sigl does not require limits be set first), comparing at least a portion of the received state data with an input method selection database information stored in the mobile computing device (Col. 2, line 34 et seq.), the input method selection database comprising information regarding commonly-entered user text for the application program (letters and numbers are common inputs), one or more customized keys unique to the application program, and one or more customized key arrangements for the application program (Col. 2, line 58 et seq.); and displaying through the mobile computing device a customized keyboard that is unique to the application program (Fig. 2 and corresponding text), wherein the customized keyboard includes one or more keys comprising text that, when selected by the user, is displayed on the mobile computing device. While Sigl teaches the software input methods selected according to the application program state involving the field that initially received focus, they fail to explicitly teach the customized keyboard includes one or more customized keys comprising text as recited in the claims. In the same field of the invention, Dutta teaches

a software input method manager (virtual keyboard manager) with a plurality of software input methods similar (customizable touchscreen keyboard) similar to that of Sigl. In addition, Dutta further teaches wherein the customized keyboard includes one or more customized keys comprising text (Fig. 8 and corresponding text), It would have been obvious to one of ordinary skill in the art, having the teachings of Sigl and Dutta before him at the time the invention was made, to modify the software input system for using different input panels configured to receive user input, wherein the independent method manager selections the method based upon a determined state of the application's initial field with focus by Sigl to include the customized keyboard includes one or more customized keys comprising text of Dutta, in order to obtain an input method using an initially chosen field to determine which input method along with customized keys unique to the application program to be displayed. One would have been motivated to make such a combination because a predictable dynamic input system for all keyboard-input accepting applications would have been obtained, as taught by Dutta.

As in Claims 26 and 29, Sigl and Dutta do not explicitly disclose that the text displayed on the one or more customized keys comprise any one of: an internet address abbreviation or extension including "http://", "www", ".com", ".net", ".org", ".gov", ".biz", ".edu", ".mil"; or a full or abbreviated spelling of a month, day or year. However, these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. All the steps of the function would be performed the same way regardless of whether or not the items corresponded to analysis results or anything else. Thus, this descriptive material will not distinguish the

claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display any string of characters and symbols, because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention. Furthermore, in accordance with the teachings of Dutta, any commonly used strings maybe included in the "guessing" done in Figure 8.

As in Claims 27 and 30, Dutta teaches customized keys comprising a part of a word previously entered by the user during prior use of the application program (Col. 5, lines 35-38). Sigl and Dutta do not explicitly disclose that the text displayed on the one or more customized keys comprise a complete word previously entered by the user during prior use of the program. However, these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. All the steps of the function would be performed the same way regardless of whether or not the items corresponded to analysis results or anything else. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display full word on the button as opposed to just the ending, because such data does not functionally

relate to the steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

As in Claim 28 Dutta teaches the predicted and selected input panel comprises one or more customized keys comprising a text string that, when selected by the user, is displayed on the mobile computing device (See Claim 9 rejection as recited *supra*).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being anticipated by Sigl, US Patent 6714220, and of Dutta et al., US Patent 6724370, hereinafter Dutta, and further in view of Cobbley et al. US Patent Application Publication 2002/0085038.

Sigl and Dutta teach the method of Claims 1-7 as seen *supra*. While Sigl teach the sending of key choices with the multiple input methods along with Dutta's teachings of application programs, they fail to show the use of XML format used to communicate the key choices to the software input method as recited in the claims. Cobbley et al. teaches a keyboard similar to that of Sigl and Dutta. In addition, Cobbley et al. further teaches using of XML format to communicate key choices ("text entry blocks may use particular coding such as hypertext markup language (HTML) coding or other languages including extensible mark up language (XML)", Paragraph 15). It would have been obvious to one of ordinary skill in the art, having the teachings of Sigl and Dutta and Cobbley et al. before him at the time the invention was made, to modify the key choices communication for multiple applications taught by Sigl and Dutta to include the usage of the XML format of Cobbley et al., in order to obtain the transmitting of key-related data

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using XML format. One would have been motivated to make such a combination because an Internet capable input system would have been obtained, as taught by Cobbley et al.

Response to Arguments

Applicant's arguments filed 2/29/07 have been fully considered but they are not persuasive.

In response to the applicant's argument "Sigl reference teaches that a device can provide a customized keyboard only after a user selects a particular 'parameter'", the examiner disagrees. Sigl teaches that a parameter must be selected (ie. the field) and then the input panel is chosen according to that state. Even if they did not, this limitation is taught by Dutta as well where the user chooses a field and the standard layout is chosen to be displayed.

In response to the applicant's argument that Sigl and Dutta fail to teach a user can open an application and then be provided a customized keyboard without having to also enter some input into the focused running application window, the examiner points to Fig. 1, ref. 1.5 of Sigl.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara M. Hanne whose telephone number is (571) 272-4135. The examiner can normally be reached on M-F 7:30am-4:00pm, off on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WEILUN LO can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

smh

BA HUYNH
PRIMARY EXAMINER